

What is claimed is:

1. A method for removing a pseudo signal from an original signal which includes a main signal free from a zero-shift component and the pseudo signal consisting of zero-shift components, the method comprising the steps of:

5 means for integrating said original signal with respect to time;

means for decomposing said integrated original signal into the sum of one Approximation ( $A(t)$ ) and at least one Detail ( $D(t)$ ) by wavelet transformation with a level number deepened until which level number reaches to a threshold level number where the ratio of the energy of said one Approximation to the energy of said original

10 signal has a predetermined relationship to a predetermined threshold value;

means for setting said Approximation to zero at said threshold level number as a pseudo signal component by a threshold operation;

means for deriving an integrated main signal by reconstituting said Details up to said threshold level and said Approximation previously set to zero by wavelet inverse transformation; and

means for deriving said main signal by differentiating said integrated main signal with respect to time.

2. The method for removing a pseudo signal according to claim 1, wherein said threshold level number is the minimum of the level numbers where the ratio of the energy of said one Approximation to the energy of said original signal becomes smaller than a predetermined threshold value.

3. The method for removing a pseudo signal according to claim 1, wherein said original signal is an acceleration signal detected by a sensor for an impact test, and said pseudo signal is a zero-shift component induced to said sensor by the impact of said impact test.

25 4. An apparatus for removing a pseudo signal from an original signal which includes a main signal free from a zero-shift component and the pseudo signal consisting of zero-shift components, the apparatus comprising:

means for integrating said original signal with respect to time;

means for decomposing said integrated original signal is decomposed into the sum of  
30 one Approximation ( $A(t)$ ) and at least one Detail ( $D(t)$ ) by wavelet transformation

with a level number deepened until which level number reaches to a threshold level number where the ratio of the energy of said one Approximation to the energy of said original signal has a predetermined relationship to a predetermined threshold value;  
means for setting said Approximation to zero at said threshold level number as a pseudo  
5 signal component by a threshold operation;  
means for deriving an integrated main signal by reconstituting said Details up to said  
threshold level and said Approximation previously set to zero by wavelet inverse  
transformation; and  
means for deriving said main signal by differentiating said integrated main signal with  
10 respect to time.

5. The apparatus for removing a pseudo signal according to claim 4, wherein said threshold level number is the minimum of the level numbers where the ratio of the energy of said one Approximation to the energy of said original signal becomes smaller than a predetermined threshold value.

15 6. The apparatus for removing a pseudo signal according to claim 4, wherein said original signal is an acceleration signal detected by a sensor for an impact test, and said pseudo signal is a zero-shift component induced to said sensor by the impact of said impact test.